

## SEMICONDUCTOR DEVICE

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### Abstract

**PURPOSE:** To prevent hydrogen from being diffused into a gate insulating film with an antireflection film constituted of an SiON system thin film being kept existing by forming a permeation preventive film between the gate insulating film and an oxynitride silicon based thin film.

**CONSTITUTION:** A hydrogen permeation preventive film 22 constituted of an SiN based thin film, an antireflection film 10 constituted of an SiON based thin film, and an oxide silicon-made offset oxide film 11 are formed in this order on a gate electrode 2 and side faces of these films are coated with a side wall 13. Due to this structure, hydrogen is prevented from reaching at least a gate insulating film 7 just under the gate electrode 2 by the existence of the hydrogen permeation preventive film 22 even if the antireflection film 10 constituted of an SiON based thin film is kept existing. This means that the diffusion of hydrogen into the gate insulating film is prevented with the existence of the antireflection film constituted of an SiON based thin film.

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